Innovative Access Control Systems

JANUS-lite

User Manual

grosvenor
TECHNOLOGY

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Introduction

JANUS-lite from Grosvenor Technology Ltd. offers a unique new entry level into access control. Easy to program and simple to use, JANUS-lite has much to offer the large or small operator seeking the sophistication of multiple functionality without undue complexity. JANUS-lite provides a secure environment for the working practices best suited to your needs.

JANUS-lite is an automatic Access Control System programmed from a hand-held computer/organizer, connecting to Intelligent Door Controllers (IDC's) via an infra-red signal (or plug-in cable). The system is quick to install, easy to program and simple to use.

Key features of JANUS-lite

User friendly - The hand-held computing platform has an easy to use interface which can be driven via a touch-screen, on-screen keyboard, or touch-screen with on-screen handwriting.

Simple and precise access permissions can be allocated quickly and altered as often as required.

'Batch load' cards to save time and use the instant look-up facility to check cards and access permissions that already exist.

A complete system database can be entered before going to site.

Flexibility - JANUS works with all of the most popular reader technologies. Different reader technologies can be used within the same system, e.g. infra-red readers could control general office areas and a 'hands free' reader technology could be used for executive offices.

Reconfiguration of the system design due to departmental moves or building alterations can be accommodated effortlessly by JANUS without causing disruption to the remainder of the system.

Can be upgraded to JANUS for Windows™, simply by adding communications wiring and a PC running JANUS for Windows™ software.

Capacity - A single JANUS-lite database can supervise 63 IDC’s, where each IDC is able to manage two readers, two locks and up to 8,000 card users. With the capability to store multiple databases on the same hand-held computer, capacity with JANUS-lite is not an issue.

Security - There are up to three levels of security. The hand-held computer itself can be password protected, each database on the system requires a password and finally, the IDC’s are individually password protected.

Contacting Grosvenor Technology Ltd.

Grosvenor Technology is committed to supplying premier products and services as well as providing technical support and expertise in design, implementation, and systems after care.

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Services provided

Technical Training - Comprehensive training programs to meet the needs of Approved/ Authorized Installers. Courses include design, installation, troubleshooting, and the fundamentals of PC networking, and operation and administration of all JANUS systems.

Pre-Sales Services - Technical and quotation assistance including application, configuration and installation planning.

Help Desk Services - Telephone support to assist commissioning engineers with installation and system set-up. Unlimited availability during software warranty periods, or when covered by a Software Support Plan. Also available at published rates if not covered.

Remote Diagnostics - Dial-in assistance to aid system troubleshooting. Unlimited availability during software warranty periods, or when covered by a Software Support Plan. Also available at published rates if not covered**.**

Product Repairs - Available from our workshops in Bishop's Stortford. A standard fee is charged as to Grosvenor Technology published rates. Advanced warranty replacements are available upon request.

Database Conversions - Easy upgrades from one system to another where database structures would otherwise be incompatible. Fees may be charged if complicated scripts or interfacing is

required. Contact Grosvenor Technology in each instance.

Services on Demand - Supplied where a Software Support Plan is not in force. Fees are charged as to Grosvenor Technology published rates for technical support and on-site services.

Grosvenor Technology reserves the right to refuse assistance to any Service Company or engineer that has not been fully trained to our required system standards. Unqualified engineers may compromise the security and efficient working of the End-User access control and/or other security systems.

Using this manual

The manual has been laid out in 4 main sections:

- An overview of a JANUS-lite system
- Creating a database
- Adding and editing information in the JANUS-lite database
- Transferring information between the hand-held computer and the door controllers

Conventions

All instructions are shown next to the relevant screens from the JANUS-lite application.

Menu names and options are printed in bold type. For example: Select **Accept**.

This symbol represents information important to the operation of the JANUS-lite application.

This symbol represents a warning of potential conflict or data loss when using the application.

System overview

An **Access Control System** provides the ability to control, monitor and restrict the movement of people, assets or vehicles in, out and around a building or site. It also offers the potential of unique identification of individuals or goods entering or leaving controlled zones within a building or site.

Access Control devices may be used in conjunction with a variety of different entrance arrangements, including: doors, turnstiles, barriers, gates, rising barriers, elevators and double door arrangements.

With continuing developments in technology, Access Control Systems can function as stand alone or on-line systems connected to an operator station. Products range from token based systems, digital keypads, through to biometric identification systems.

JANUS-lite software

JANUS-lite is an automatic Access Control System programmed from a hand-held computer/organizer, which can connect to the access control communications network, or individual door controllers via an infra-red signal or cable.

The system is capable of storing multiple database systems on the same organizer.

Installing JANUS-lite

JANUS-lite should be installed on computers running Windows 95 Windows 98, Windows NT4 and Windows 2000 (Service Pack 6 or higher on NT4 and Service Pack 1 for 2000).

JANUS-lite also requires Palm OS version 3.5 or higher to be installed on your PC, therefore, you are advised to set up the Palm organizer and install the Palm Desktop organizer software as per the manufacturers instructions before you install JANUS-lite.

To install the JANUS-lite software from the CD:

1. Insert the CD labeled ‘JANUS-lite’ into your CD-ROM drive. If Autorun is enabled on your system the CD starts up and you can select **Install JANUS-lite** from the CD autorun page.

2. Alternatively, from the **Start** menu select **Run**. Type **F:\autorun.exe** (substitute the appropriate letter of your CD-ROM drive for F).

3. Follow the instructions on the screen to proceed with the installation. Click **Done** when you reach the screen which lists the files which will be installed on to the organizer. Click **OK** to continue. Click **Finish** to exit the installer when the installation is complete.

4. To load the JANUS-lite software onto the Palm organizer, place the Palm organizer into the cradle and press the HotSync button. The JANUS-lite software is automatically loaded onto the organizer and is now ready to use.

System hardware

The basic JANUS-lite system comprises of:

- One or more hand-held computers.
- Intelligent Door Controllers (IDC's)
- Readers
- Infra-red RS232 toRS422/485 converters or remote infra-red units

Hand-held computer/organizer

The functions of the hand-held computer are:

- To process the JANUS-lite program.
- To store and maintain the system database(s).
- To view system activity.
- To pass control data to Intelligent Door Controllers and to receive transaction data from them.

It is also capable of operating with non-access control applications including; diary, telephone and address book.

Low or no battery power in an organizer may lead to the loss of all JANUS-lite databases stored on that organizer and the JANUS-lite software. Grosvenor Technology Ltd. recommends that all JANUS-lite data be backed up to a PC each time changes are made to a JANUS-lite database. See **System backup and archive** *for further details.*

Intelligent door controllers

Controllers are at the heart of any JANUS system. Once loaded with configuration data from the hand-held computer they are capable of executing full security at door level without further reference back to the host computer, other than:

- To receive updates and alterations of system data.
- To download its own transactions.

The IDC wires directly to a card reader, door contact, lock and egress switch for two complete door sets, **Figure 1** shows a typical setup.

If there is a common field communication network in place, JANUS-lite can support 32 IDC's per database. Alternatively, 63 IDC's per database can be supported if there is no field communication network.

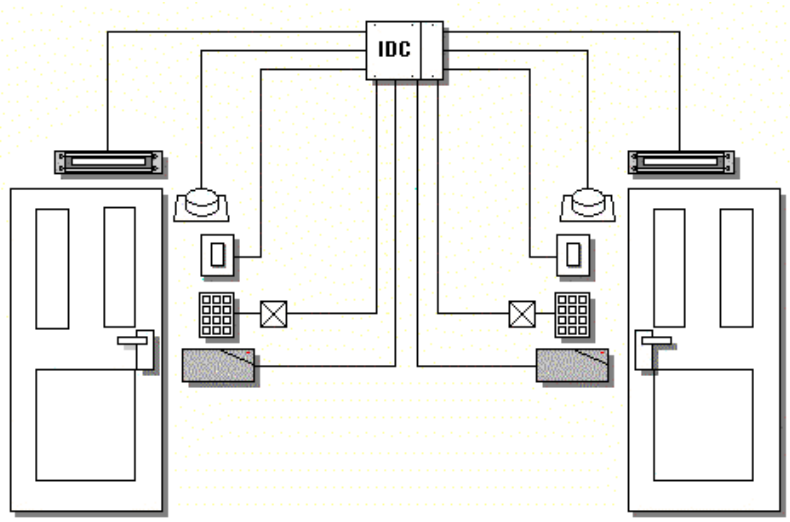


Figure 1. Typical IDC setup.

With, or without a field communications network, each IDC is individually password protected (see the section on **Entering new controllers** for further information), and will control and monitor:

- 2 Card readers
- 2 lock outputs on doors, barriers or turnstiles

Plus associated:

- PIN function
- egress switches
- door monitors
- door wedged alarms
- door forced alarms
- valid card indication
- invalid and unknown card indication
- permissions and time patterns for all doors and equipment attached to it
- 8,000 card user details
- tamper to the IDC enclosure
- mains power failure indication
- automatic switch to battery back-up on power-fail (including locks)

The IDC also maintains a local log of the past 2,000 important historical events and transactions. When this event buffer is full, the oldest, non-important events are over-written first.

Each IDC is capable of supporting two reader technologies, whether the combination is on one door or two. See the section on **Readers** for details of the technologies supported.

They can also be grouped using a password per group, allowing system administration to be controlled with the utmost flexibility.

Additional IDC's can be added to the system without adversely affecting the operation, or set-up of the existing nodes. Failure of any IDC will not adversely affect communications with other nodes.

Two types of IDC can be supported by the JANUS-lite software:

1. The IDCL, which is specifically designed for use in a JANUS-lite system (see **IDCL installation and connection details** for further information).

2. The Windows IDC, which requires additional hardware (Infra-red converter) to connect a remote infra-red unit to the controller.

Readers

The Reader is assigned to a door and is the device, which reads the cards, carried by the people using the system. Any type of card reader can be connected to either half of the IDC (swipe, proximity, hands free, etc.).

Although the GTL DualProx Reader has been specifically designed with a remote infra-red unit to work with JANUS-lite, a comprehensive range of reader technologies are supported. **Table 1** illustrates the different characteristics of the reader technologies supported by JANUS-lite.

Table 1. Comparison of Reader Technologies.

Feature	Mag-Stripe	Wiegand	Proximity	Biometric	Watermark	Smart Card
Security	Low	High	Med/High	V. High	V. High	V. High
Cost	Low	Medium	Medium	High	Medium	High
Vandal resistance	Medium	Medium	Med/High	Low	Medium	Medium
Multi-functional Card	Yes	Yes	Yes	N/A	Yes	Yes
End user encoding	Yes	No	No*	No	No	No*
Keypad option	Yes	Yes	Yes	Yes	Yes	Yes
Key fob option	No	No	Yes	No	No	Yes
Hands free	No	No	No	No	No	No
Environmental tolerance	High	High	High	Medium	Medium	High

* In some cases.

Multiple technologies can be used on the same system and even on the same door, providing maximum design flexibility.

A single card can be used for multiple functionality including access control, time & attendance and cashless vending.

Remote infra-red unit

If a reader technology other than the GTL DualProx Reader is used, a remote infra-red unit is required for direct connection to the JANUS-lite Door Controller.

It provides secure, easy connection from the organizer to the IDC, which is often installed in a remote area and not always accessible on a regular basis for system updates and re-loads.

Infra-red RS-232/422 converter

This is the communications interface between the hand-held computer/organizer and a Windows IDC. It provides conversion between RS-232 from the hand-held computer to four wire RS-422 for the IDC.

IDCL installation and connection details

The IDCL is supplied pre-mounted on a chassis plate with a PSU. A standard PSU will provide 12V DC, 1.5A for locks and has an integrated box tamper switch. This chassis plate is designed to fit into an enclosure that has an A4 size footprint and is 70mm deep. The enclosure carcass includes:

- Transformer
- Mains termination block
- Earthing cables

The enclosure will also accommodate a standard 7Ah battery, has a single screw fixing for the lid and can be mounted in any orientation. All interconnect cables including battery leads are supplied. See **Figure 2** for a diagrammatic representation of the IDCL/PSU chassis plate and enclosure.

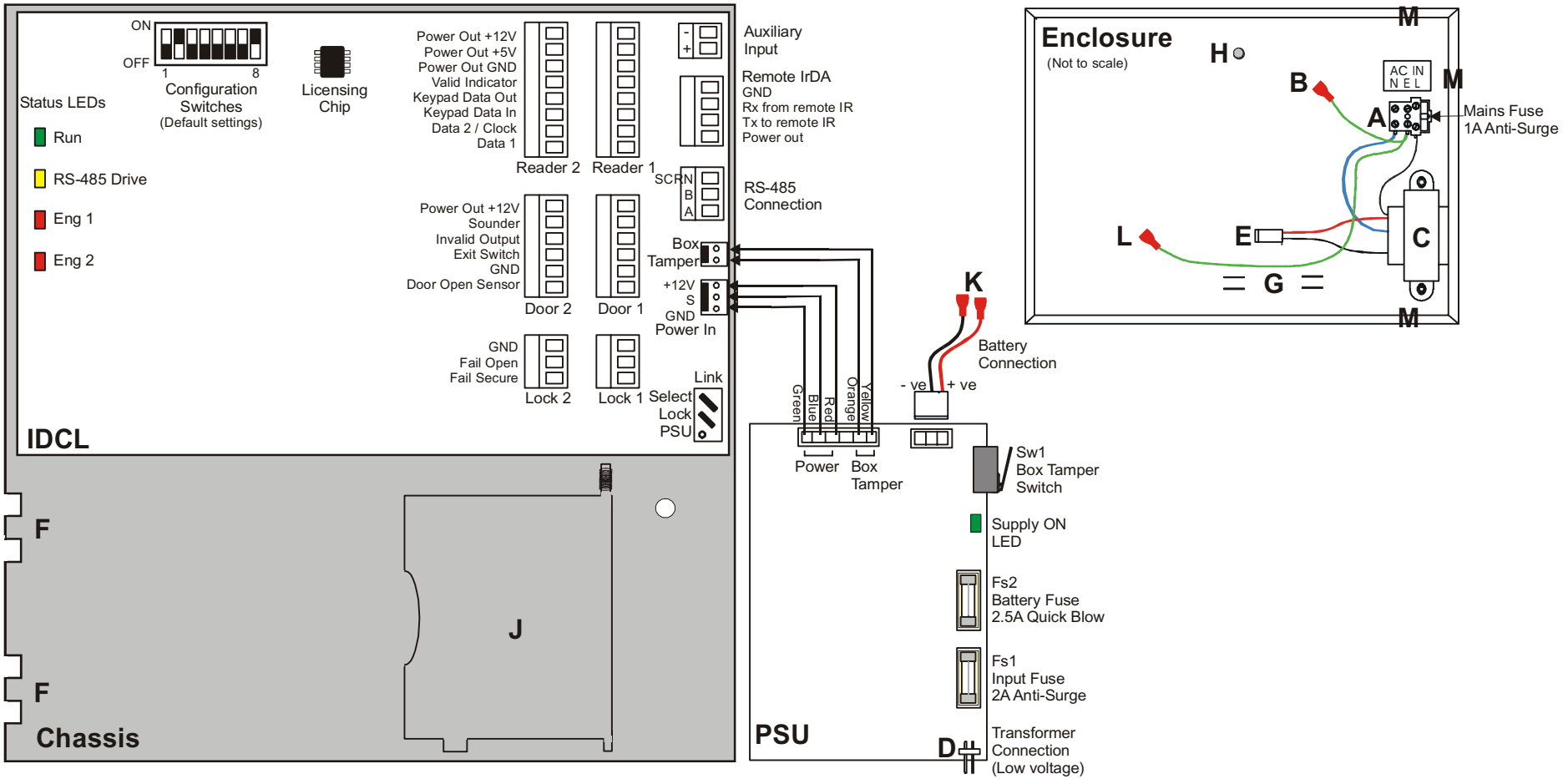


Figure 2. IDCI\PSU chassis plate and enclosure.

Electrical environment

The enclosure should not be installed near to hazardous voltages or where it will be exposed to strong radio frequencies or magnetic fields. All JANUS equipment is CE compliant.

Physical environment

The IDCL must be installed into a clean and dry area. It operates satisfactorily between 0 and 50°C with a relative humidity between 5% and 85%, non-condensing. The atmosphere must be completely free of corrosive gases.

IDCL setup

Refer to Figure 2 for details.

1. The mains supply should enter the enclosure through one of the knockouts marked M. Terminate the live, neutral and earth in the mains termination block (A) in the enclosure.
2. Attach the shorter of the two enclosure earth leads (B) to the stud on the the chassis.
3. Connect the transformer (C) to the PSU (D) via the lead supplied (E).
4. Slide the chassis into the enclosure ensuring that the tabs on the chassis plate (F) locate into the slots on the enclosure (G) and that the chassis is positioned over the mounting hole (H). Secure with fixing screw.
5. Remove the battery connector lead (K) from the PSU and fit the spade terminals to the battery terminals: **red wire to +ve, black wire to –ve**.
6. To insert the battery, first release the flap (J) and move it towards the PSU. Slide the battery into position, ensuring that the earth lead (L) still protrudes above the chassis plate. Return the flap to the upright position and lock into place. Reconnect lead (K) to PSU.
7. Attach earth lead (L) to the stud on the enclosure lid before screwing lid into place.
8. No voltage above 30V shoud be present in the low voltage section of the enclosure.
9. The infra-red comms speed is fixed at 19.2k Baud.

Configuration switches

These are used to define the address of the controller and the communication speed at which it will. See Figure 3 for details.

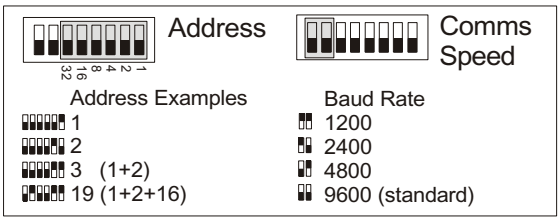


Figure 3. Configuration switch settings.

Common connection examples

The figures below provide details of some of the standard connections between an IDCL and the other types of system hardware.

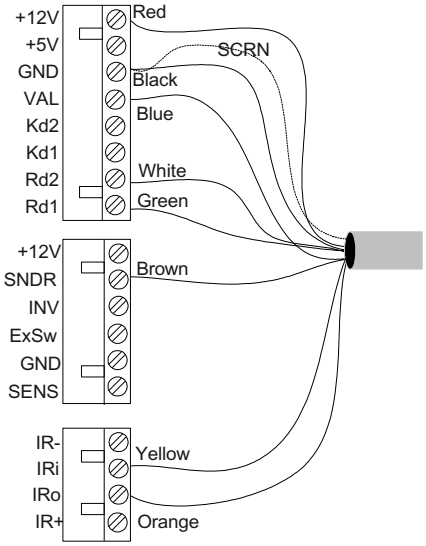


Figure 4. Grosvenor DualProx reader with infra-red

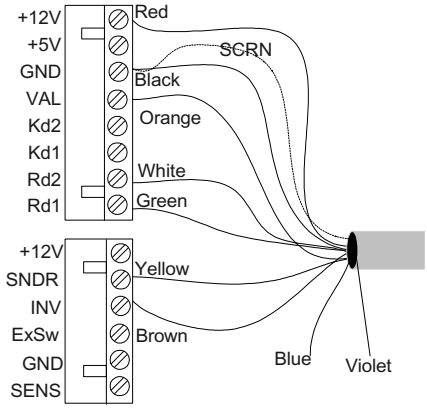


Figure 5. HID Prox reader (Grosvenor format)

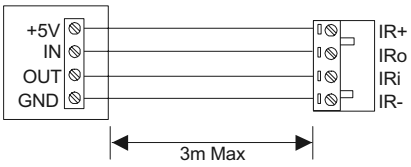


Figure 6. Remote IR unit

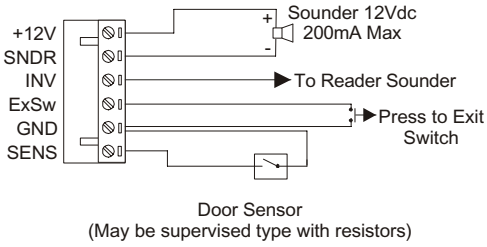


Figure 7. Door connection

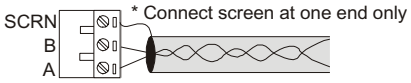


Figure 8. RS-485 connection

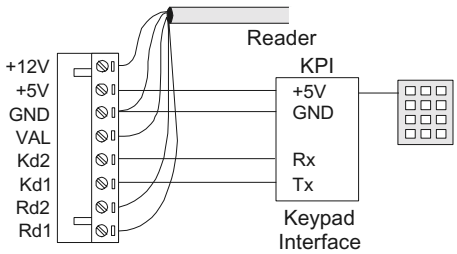


Figure 9. Keypad connection

Lock connections

When using an internal lock power supply, the combined lock current should not exceed 1.5 Amps.

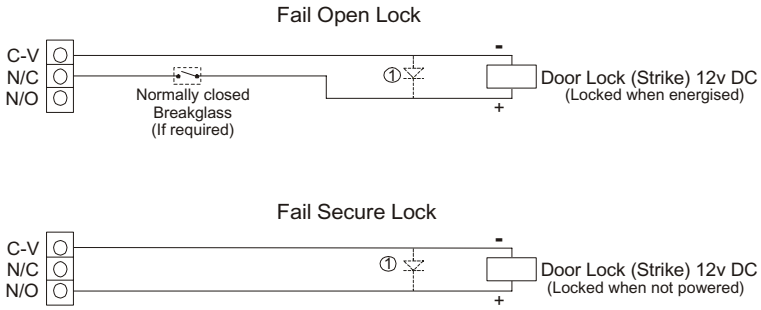


Figure 10. Internal lock supply.

When using an external lock power supply, each lock should not exceed 3 Amps.

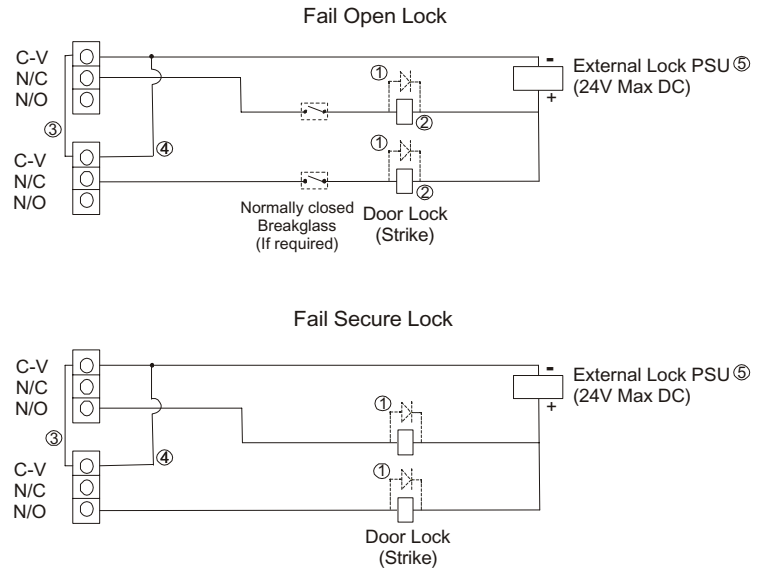


Figure 11. External lock supply (DC).

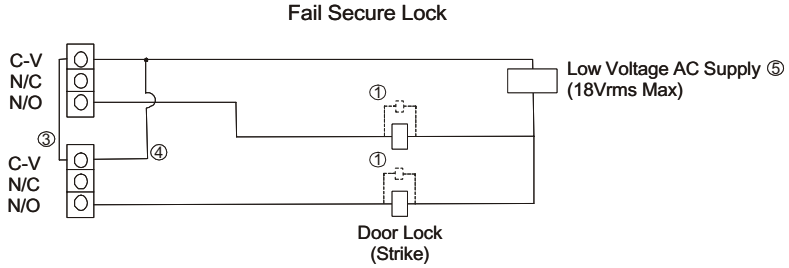


Figure 12. External lock supply (AC).

Lock connection notes

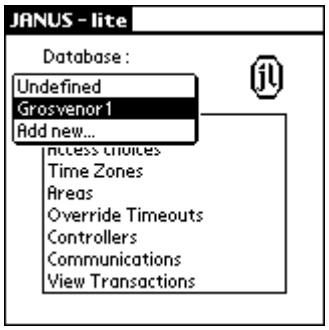
1. Refer to lock manufacturers data regarding suppression components, e.g. diodes. If fitted, observe polarity. For maglocks, do not fit diode.
2. Lock voltage must match supply voltage. May be AC or DC.
3. C-V connections are connected together internally, but isolated from all other IDCL circuitry.
4. Where total lock current exceeds 3A, wire PSU to both C-V connections.
5. External supply must be fused, 6 Amps max.

Using the JANUS-lite software

The instructions in this manual assume knowledge of the hand-held computer on which the JANUS-lite application is installed. For all non-JANUS commands please consult the manufacturers handbook.

JANUS-lite menus

The main screen of the JANUS-lite application acts as the primary menu for the application.



Main JANUS-lite screen

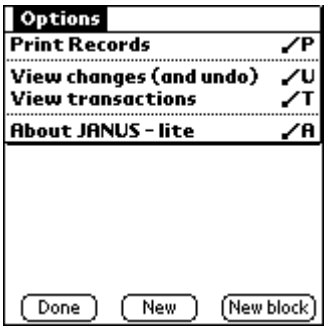
From this screen, you can select, delete or create a new database. Add, edit or delete:

- Cards
- Access choices
- Times zones
- Override timeouts
- Door controllers

You can also oversee communications between the hand-held computer and the door controllers and view all transactions held within a database.

Further options are available in most screens by selecting the **Menu Icon** on the hand-held computer.

Options menu



Menu options

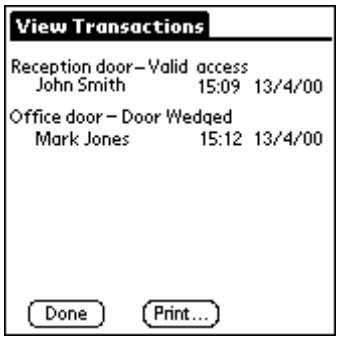
- An **Options** menu is available in all of the main JANUS-lite screens *except* for the **Communications** and **Select database** screens

Printing Card Records

- The **Print Records** option is configured to work with Cards and Controllers and Transactions only. It is dependant on PalmPrint software being installed on the hand-held organizer and the availability of an IR printer.

View changes

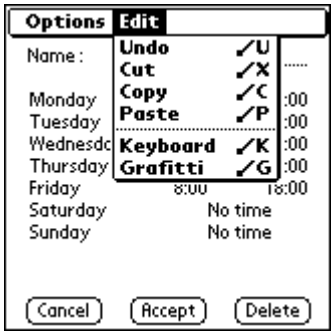
- The **View changes (and undo)** option lists all of the changes made to the database during the *current* session, or since the last **Commit Changes** command. The last change is appended to the end of the list
- Selecting **Undo last** cancels the last change and removes it from the list.



View Transactions

- **View Transactions** lists *all* of the transactions that have *ever* been monitored by the door controllers defined within the database.
- Each transaction has details of the **Door**, **Time** and type of **Event.** The last event is appended to the end of the list.
- The **Print** option is only available if there are transactions listed.
- Select **Done** to return to the previous screen.

Edit menu

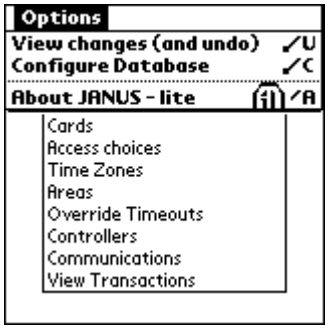


Edit menu

- The **Edit** menu is only available in the *Edit* screens of JANUS-lite. It provides standard editing functions if required, including
  - Undo
  - Cut
  - Copy
  - Paste

Depending on the type of hand-held computer being used, there may be the options within this menu to call up an on-screen keyboard, or alternative.

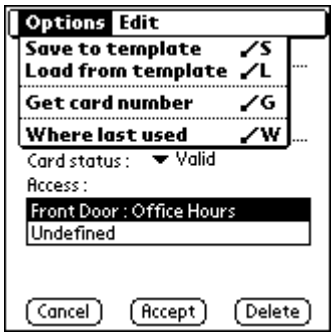
Database-specific option



Database-specific options

- This option menu is only available in the main JANUS-lite screen by selecting the **Menu** Icon.
- The **Configure Database** option takes you into the **Select Database** screen, where you can choose the database that you wish to edit. This is discussed in more details in the **Editing a database** section of this manual

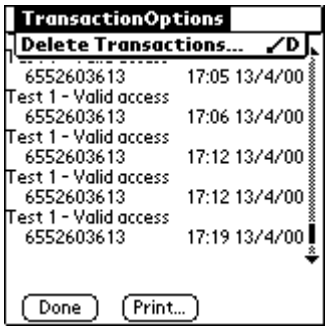
Card-specific options



Card-specific options

- These options are only available by selecting the **Menu Icon** when editing an existing Card, or adding a new Card to the database.
- The function of these options is discussed in detail in the **Cards** section of this manual.

View Transactions-specific option



Delete Transactions

- This option is only available by selecting the **Menu Icon** when in the View Transactions screen.
- This option is only available if there are transactions recorded in the database.
- The function of this option is discussed in detail in the **Delete transactions** section of this manual.

Starting JANUS-lite

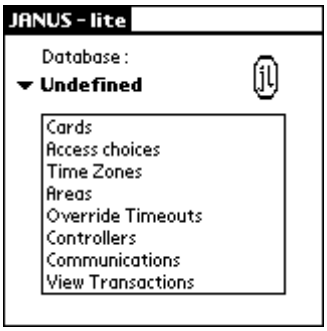
List of applications

1. Switch on the hand-held computer.
2. Select the **JANUS-lite** icon from the applications listed.
   - JANUS-lite will open to display a Welcome message. This explains the need for a database to be defined before any other information can be added.
   - Scroll down to read the entire message.
3. After reading the message, select **OK** and the application will take you into the **Edit Site Database** screen where you can enter the details for the first database.

Define the first database

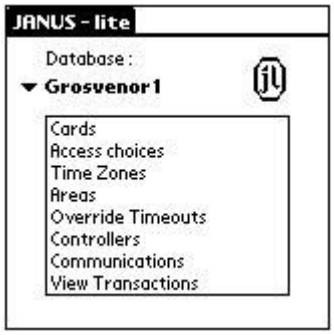
4. The **Site Name** (maximum 20 characters) and **Site ID** fields are compulsory, if either of these fields is left blank; a *Missing or Invalid Data* message will be displayed.
5. Enter the information in the appropriate fields, ensuring that the **Site ID** is 4 characters long (see note).
   - The **Password** is optional (max 10 digits).

When you tap on the **Site ID** field, JANUS-lite will allocate the first four letters of the **Site Name** as the site ID. If this is less than 4 characters, JANUS-lite will add the necessary number of periods to the end of the character string.



Main JANUS-lite screen with no database defined

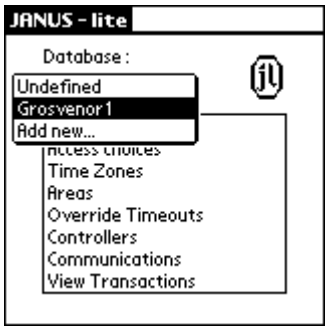
6. Selecting **Cancel** at any time will return you to the main JANUS-lite screen, where the active database field will state **Undefined**.
7. Select **Accept** to save the database information and to return to the main JANUS-lite screen. The new database name is displayed in the active database field.



Main JANUS-lite screen displaying new database

- You are now ready to populate the JANUS database. See the section on **Adding information to a database** for detailed instructions.
- Alternatively, to define another database see the following section entitled **Entering a new database** for further information.

Entering a new database



Database selection

1. In the main JANUS-lite screen, select the **Database** pull-down menu. This will display the list of databases previously defined and the **Add new** option.

2. Select **Add new** to display the **Edit Database** screen.

Edit Database screen

3. Enter the **Site Name** and **Site ID** as previously described in **Starting JANUS-lite**.

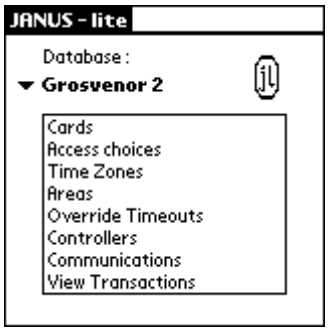
- Selecting **Cancel** at any time will return to the main JANUS-lite screen.

Add database details

4. When the details have been entered, select **Accept** to save the information to memory and return to the main JANUS-lite screen. The new site name will be displayed in the active database window.

5. Repeat steps 2 to 4 to enter any further sites.

Each database must be given a unique **Site ID**; otherwise, the system will display a message stating that the record has already been defined.

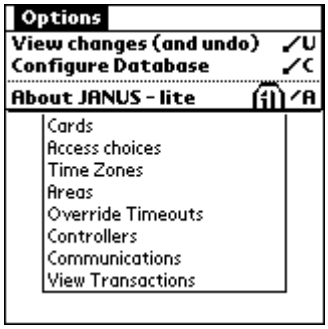


New database is active

Although the system will accept multiple databases with identical **Site Names**, this practice is not recommended.

- The database is now ready to be populated with information. See the section entitled **Adding information to a database** for further details.

Editing a database

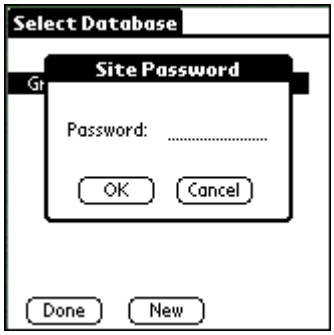


Options menu

1. In the main JANUS-lite screen, use the **Menu** icon to display the options menu.
2. Choose **Configure database** to display the **Select Database** screen.

Select database screen

3. Choose the database from the list displayed.



Database password screen

4. If the database is password protected, the **Site Password** screen will be displayed. Enter the site password and select **OK**.
5. If the password is accepted, the **Edit Database** screen will be open. If it is incorrect, the **Select Database** screen will remain displayed.
6. Modify the information as required and select **Accept** to save the changes.

Edit database screen

After initial entry, only the **Site Name** and **Password** can be edited, the **Site ID** remains fixed.

7. Repeat steps 3 to 6 for all databases to be edited.
8. Select **Done** to return to the main JANUS-lite screen.

Deleting a database

Deleting a database

1. In the main JANUS-lite screen, use the **Menu** icon to display the options menu.
2. Choose **Configure database** to display the **Select Database** screen.
3. Choose the database from the list displayed.
4. If the database is password protected, the **Site Password** screen will be displayed. Enter the site password and select **OK**.
5. If the password is accepted, the **Edit Database** screen will open. If it is incorrect, the **Select Database** screen will remain displayed.
6. In the Edit Database screen select **Delete**. You will be asked to confirm the command, select **OK**. This will delete the database from memory and return you to the **Select Database** screen.
7. Repeat for all remaining databases to be deleted. Select **Done** to return to the main JANUS-lite screen.

Adding information to a database

After the initial installation of the Access Control System (controllers and readers), and before any information is entered into the database, it is of great long-term benefit if a Plan of the system is set out, as it can make entering the system information much easier.

The plan should consist of:

- Naming the controlled **Areas** people will require access to.
- Defining the **Time Zones** (times linked to days of the week).
- Defining the range **of Access Choices** (a combination of area and time zone), required for the system.
- Deciding which **Access Choices** cardholders should have.
- Naming the **Doors** in the controlled **Areas**.
- Naming the **Readers** associated with the **Doors**.
- Assigning **Doors** and **Readers** to **Controllers**.

The following sections give full details on how to enter and edit the different categories of system data.

Areas

There are no default areas set for a new database, therefore at least one area must be added before any Access Choices can be defined.

Entering new areas

Edit Area
Name :
Using Areas
Areas are used with time zones to define access choices. Cards allocated an access choice can gain entry at a reader in that area.
Cancel
Accept

Enter new area

Duplicate record message

1. Ensure that the correct database is displayed in the active database field on the main JANUS-lite screen.
2. Select **Areas**, then **New**.
3. Fill in the area name (maximum of 20 characters in length), e.g. **Office**.
4. Select **Accept** to enter the area into the database.
   - If a duplicate area name is entered, a message will be displayed stating that the record already exists. Select **OK** to close the alert window.
   - Either **Cancel** the duplicate area, or choose an alternative name.
5. Repeat steps 2 to 4 until all areas have been entered.
6. Select **Done** to return to the main JANUS-lite screen.

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Editing areas

Editing an area is limited to changing the name of that area, or deleting the area from the database.

Area list

1. Ensure that the correct database is displayed in the active database field on the main JANUS-lite screen.
2. Select **Areas**. The **Select Area** screen is displayed listing all areas defined in the database.
3. Select the Area **Name**.

Edit Area
Name :
Using Areas
Areas are used with time zones to define access choices. Cards allocated an access choice can gain entry at a reader in that area.
Cancel
Accept

Edit area

4. Edit the name, and then select **Accept** to save the change.

- Or, select **Delete**. You will be asked to confirm this choice before the area is removed from the database. Select **OK**.

5. Repeat steps 2 to 4 until all areas have been edited. Select **Done** to return to the main JANUS-lite screen.

---

*If a deleted **Area** is part of an existing **Access Choice**, that **Access Choice** will also be removed from the database, and from any **Cards** it was assigned to.*

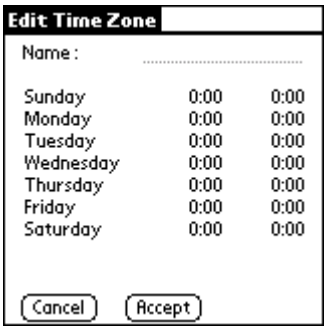
Time zones

Each database has a default time zone called **All The Time**. This can be edited or deleted as required. See the section entitled **Editing time zones** for further information.

Entering new time zones

Enter new time zone

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Time zones** to display a list of time zones defined for that database. Select New.



Edit time zone

3. The **Edit Time Zone** screen is displayed. Fill in the time zone **Name** (maximum of 20 characters in length), e.g. **Office Hours.**
4. By default all times are set at **0:00**, with a **Start Time** and an **End Time** available for each day of the week.

Select Start and End times

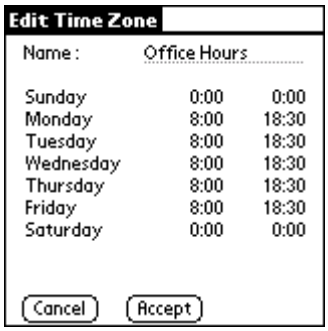
5. Allocate a **Start Time** by tapping the first time for the appropriate day of the week (left-hand column). Use the arrows to select the hours (**0** to **23**) and minutes (**00** to **59**). Select **OK**.
6. Allocate an **End Time** by tapping on the second time (right-hand column) for the same day of the week as in step 5. Select the hours and minutes as previously described.
7. Repeat steps 5 and 6 for each day to be included in the time zone.

Copy Start and End Times

8. If the **Start** and **End Times** are the same for each day of the week in a time zone, then select the **Name** of the day with the times you wish to copy, e.g. Monday. Select **Copy**.

Paste Start and End Times

9. Select the **Name** of the next day you wish to include in the time zone, e.g. Tuesday. Select **Paste**.



Start and end times defined

10. Repeat step 9 for all days to be included in the time zone. Select **Accept.**

11. Repeat steps 2 to 10 for each time zone to be included in the database.

List of time zones defined

12. When all time zones have been entered, select **Done** to return to the main JANUS-lite screen.

If a duplicate time zone name is entered, a message will be displayed stating that the record has already been defined. Either **Cancel,** or choose an alternative name.

Editing time zones

Editing a time zone can involve: changing the name of the time zone, altering the days during which the time zone is active, altering the Start and End times, or deleting the time zone from the database.

1. Ensure that the correct database is displayed on the main JANUS-lite screen.
2. Select **Time zones**. The **Select Time zone** screen is displayed listing all time zones defined in the database.
3. Select the time zone **Name**.
4. Edit the name, and then select **Accept** to save the change.
   - **Alternatively,** edit the **days** or **times** when the time zone is operational. Select **Accept** to save the changes
   - **Or**, select **Delete**. You must confirm this choice before the time zone is removed from the database. Select **Delete** to confirm, or **OK** to cancel.
5. Repeat steps 2 to 4 until all time zones have been edited. Select **Done**.

*If a deleted **Time zone** is part of an existing **Access Choice**, that **Access Choice** will be listed with the appropriate area, but with the time zone now as **undefined**.*

Access choices

Entering new access choices

Enter new access choice

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Access Choices**, then **New** to bring up the **Edit Access Choice** screen

Select area

3. Choose the appropriate **Area** from those listed**.**
   - Alternatively, select **Add New** from the drop down list to enter a new **Area** into the database (see the section entitled **Entering new areas** for further details).

Select time zone

4. Choose the appropriate **Time Zone** from those listed.
   - Alternatively, select **Add New** from the drop down list to enter a new **Time Zone** into the database (see the section entitled **Entering new time zones** for further details).
5. Select **Accept** to save the Access Choice to the database.
6. Repeat steps 2 to 5 until all Access choices have been entered. Select **Done**.

If a duplicate access choice is entered, a message will be displayed stating that the record has already been defined. Either **Cancel,** or choose an alternative area and time zone combination.

Editing access choices

Editing an access choice is limited to: changing the time zone, or deleting the access choice from the database.

The **Area** cannot be altered once the access choice has been saved to the database.

6. Ensure that the correct database is displayed on the main JANUS-lite screen.
7. Select **Access choices**. The **Select Access choice** screen is displayed listing all access choices defined in the database.
8. Select the appropriate access choice from the list.
9. Select an alternative **Time zone**, and then select **Accept** to save the change.
10. Or, select **Delete**. You will be asked to confirm this choice.
11. Continue until all access choices have been edited. Select **Done** to return to the main JANUS-lite screen.

*If an Access Choice is deleted from the database, it will automatically be removed from all **Cards** to which it was assigned.*

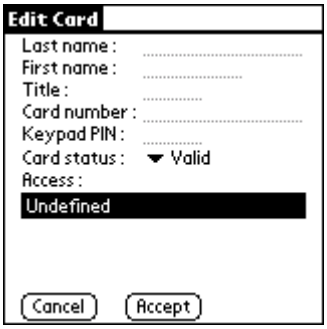
Cards

Entering new cards

There are two principal methods of adding cards to the database: individually or where there is a contiguous range of card numbers, in blocks of up to 99.

Card **Templates** can be set up for both methods. This is particularly useful when adding large numbers of cards with similar **Access choices**.

Adding individual cards



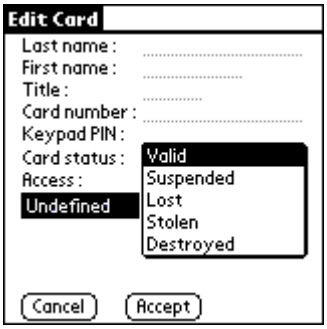
Enter card details

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Cards**, then **New** to bring up the **Edit Card** screen.
3. Enter the **Last name** (maximum of 30 characters), **First name** (maximum of 20 characters) and **Title** for the cardholder (maximum of 10 characters). These fields are all optional.
4. Enter the **Card number** (maximum of 13 digits). See the section entitled **Getting the card number** if this is not known. The **card number** is compulsory.

If a duplicate card number is entered, a message will be displayed stating that the record has already been defined. Either amend the card number or cancel the card entry.

5. Enter the **Keypad PIN** with a maximum of 4 digits (this is only applicable if keypads are used as part of the JANUS-lite access control system). If fewer than 4 digits are entered, the database will store the PIN with the required number of leading zeros. For example, if **12** was entered as the PIN number, the database would store it as **0012**.

There is no requirement for a keypad PIN to be a unique.



Select card status

6. Select the **Card status** from the drop down menus. The default is **Valid**.

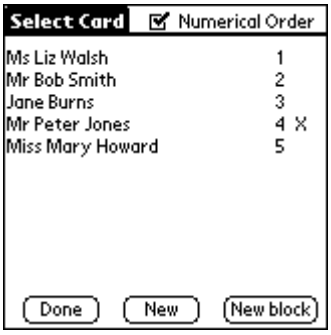
Select access choices

7. Select the type of **Access** the cardholder should have from the drop down list of **Access Choices**.

- If an Access Choice is not available from the list, select Add **new** to create the required Access Choice.

8. A cardholder may have a maximum of **16 Access Choices** assigned.

9. To add another **Access choice** to the **Card record** select **Undefined** and choose from the list displayed.



Cards defined in the database

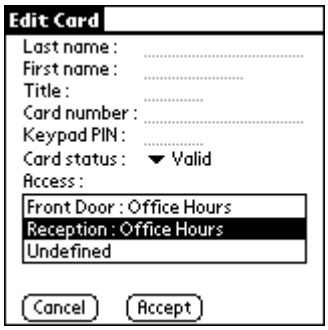
10. Repeat step 7 until all necessary **Access choices** have been selected for that **Card record**.

11. Select **Accept** to save the **Card** information to the database.

12. Repeat steps 2 to 11 until all **Cards** have been entered. Select **Done**.

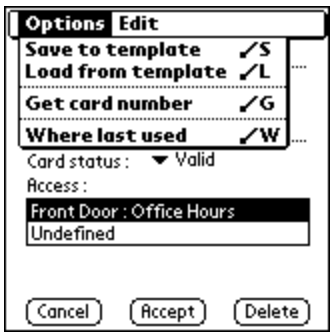
- The **Select Card** screen lists all cards defined in the database alphabetically. If the checkbox is ticked, the cards are listed numerically.
- Any card with an X next to it indicates that the card is not valid.

Setting up a template



Selecting template defaults

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Cards**, then **New** to bring up the **Edit Card** screen.



Menu options

3. Select the appropriate **Card status** from the drop down menu.
4. Select the appropriate **Access choices** from the drop down list.
5. Select the Menu icon on the hand-held computer to display the menu options.
6. Select **Save to template**. The card status and access choice options selected are now set as the default values for the template.

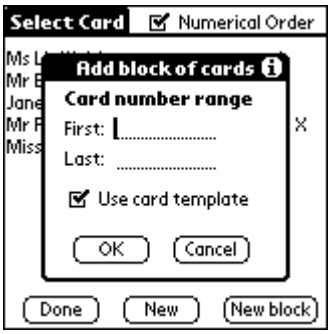
If a card record has been used solely to set up a template, the card record can be **Cancelled** and the template will remain saved. Otherwise select **Accept** and **Done**, ensuring that a valid **Card number** has been entered**.**

Each database is capable of maintaining only one template at a time. The template can be updated at any time when editing a Card record by repeating steps 5 and 6 above.

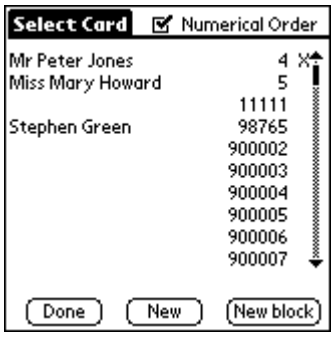
Using a template

1. To set up a Card using the template select **Cards** then **New** to bring up the **Edit Card** screen.
2. Select the **Menu** icon to display the menu options.
3. Select **Load from template**. The **Card status** and **Access choice** options are automatically loaded into the Card record.
4. Complete the remaining fields in the Card record and select **Accept**.
5. Repeat steps 1 to 4 until all Cards have been entered. Select **Done**.

Block entry of cards



Enter card range



List of cards in database

1. To set up a **Block of Cards** select **Cards** then **New** to bring up the **Edit Card** screen.
2. Select **New block**.
3. Enter the **First** and **Last** numbers in the range of card numbers (a maximum of 99 cards can be entered at any one time).
4. Selecting the **Use Template** checkbox will give all cards in the range the same **Card Status** and **Access choices**.
5. Select **OK**, then select **Done**. All of the cards will now be visible in the **Select Card** screen.
6. Cardholder details can be added when appropriate. See the section entitled **Editing cards** for further details.

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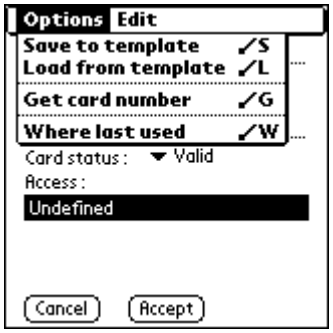
Getting the card number

The **Card number** is internally encoded within the card itself. It can be retrieved in the following way:

1. Present the Card(s) to a Reader.
2. Cards that have been read, but are not defined within the system database, are maintained on a separate list within the database.
3. To view this list select **Cards** from the main JANUS-lite screen, then select **New**.



Options menu

4. Select the **Menu** icon to display the menu options.
5. Select **Get card number**.
6. Cards that have been read but not found in the database will be listed here. They appear in time order, with the most recent at the top.

Unknown card number list

7. Choose the number from the list and select **OK**.
8. The number is placed in the **Card numbe**r field in the **Edit Card** screen.
9. Complete the card details and select **Accept**.
10. Repeat steps 1 to 9 for all other unknown cards. Select **Done**.

Editing cards

All fields in the Card record can be altered. The most common reason to edit the Card record is a change in **Card status** or **Access choices**.

Card record to be edited

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Cards** to display the list of cards defined in the database.
3. Open the **Card record** to be edited.
4. Edit the Card record fields as required.

List of access choices

5. To remove an Access choice from a card, select the **Access choice** from the list. The list of all Access choices defined for the database is displayed.
6. Select **Undefined**.
7. The **Access choice** is removed from the **Card record**.

Updated card record

8. Select **Accept** to save the changes.

- Or, select **Delete**. You will be asked to confirm this choice

9. Repeat steps 3 to 8 for any further Cards. Select **Done**.

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Controllers

Entering new controllers

Entering a new controller

Adding communications information

1. Ensure the correct database is displayed.
2. Select **Controllers**, then **New** to display the **Edit Controller** screen.
3. Enter the **Address** (see note), and **Name** for the Controller (maximum of 20 characters), e.g. **Office**.
4. Select **Communications**.
5. Enter a **Password** (not compulsory; max. 10 digits).
6. Select **Hold back transactions** to prevent transactions being downloaded from the controller every time a connection is made.
7. Select **Use Infra-red communications** if appropriate for the Controller.
8. Choose the comms **Speed** from the drop down menu (19.2k baud is the default as this is the fixed speed for infra-red comms).
9. Select **Done** to save the Communications information.

The address is a unique number which identifies the Controller so the system knows where to send messages and from where they are received. The number entered here has to be set in the Controller itself and must be in the range of **1** to **63** if there are no field communications present, and **1** to **32** if there are.

Setup Reader 1

Adding reader information

1. Select **Setup Reader 1**.
2. Enter the **Name** of the Reader associated with the Controller (maximum length 20 characters), e.g. **Office Reader**.
3. Choose **Door 1 or 2** according to the Controller setup.
4. **Area** and **Reader Type** should be chosen from the drop down lists.
5. Select **PIN Pad Active** if appropriate.
6. Choose **Done** to save the **Reader setup** information.
7. Repeat steps 1 to 6 for **Reader 2** if appropriate

Setup Door 1

Adding door information

1. Select **Setup Door 1**.
2. Enter then **Name** of the Door associated with the Controller (maximum length 20 characters), e.g. Main Office Door.
3. Select the options required from those listed.
4. Select when the Door should be **Unlocked** from the dropdown list of Time Zones. If left as the default setting (**Undefined)**, the door will always be locked.
5. Choose **Done** to save the **Door setup** information. Repeat steps 1 to 4 for **Door 2** if appropriate.
6. Select **Accept** to save the Controller information to the database.
7. Repeat for all Controllers on the system. Select **Done**.

Editing controllers

All information relating to Controllers can be edited except the Controller **Address**. This remains fixed.

Controller listing

Updated controller listing

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Controllers** to display the list of Controllers defined in the database. These are listed by **Address**, **Name** and the associated Reader**(s)**.
3. Select the **Controller** to be edited.

- If JANUS-lite has communicated with a controller, an **Info** box is displayed in the **Edit Controller** screen. This provides details of the controller **Serial Number**, **Board Type**, **Firmware Version**, **Date** of the Flash files and if **PINs** have been enabled.

4. Edit the Controller details as required.
5. Select **Accept** to save the changes.

- Or, select **Delete**. You will be asked to confirm this choice.

6. Repeat steps 3 to 5 for any further Controllers. Select **Done**.

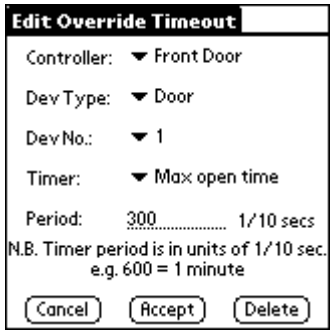
Override timeouts

These should only be changed in very specific circumstances, e.g. if the door is used for disabled access, the 'open time' should be altered accordingly.

Entering a new override timeout

Timeout list

1. Ensure the correct database is displayed.
2. Select **Override Timeouts** then **New**.



Edit timeout

3. Choose the **Controller** from the drop down list.
4. Select **Dev Type** from the list, e.g. **Door**, **Reader.**
5. Select the **Dev No.** from the list.
6. Select a value for the **Timer** from the list (see note).
7. Enter a value for the **Period**.
8. Select **Accept** to save.
9. Repeat steps 2 to 8 for all **Override Timeouts** required. Select **Done**.

The choices available in the **Timer** menu are dependent on the **Dev Type** (hardware) selected**.**

Editing override timeouts

All information relating to Override Timeouts can be edited, or the Override can be deleted from the database.

Timeout listing

1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Override Timeouts**. The list of Overrides already defined in the database is displayed (see note).
3. Select the **Override** to be edited.

Revised listing

4. Edit the **Override** details as required.

- Or, select **Delete**. You will be asked to confirm this choice

5. Select **Accept** to save the changes.
6. Repeat steps 3 to 5 for any further Overrides. Select **Done**.

These are listed by **Controller Name, Hardware Type**, and the **Timer**, which has been modified.

Communications

To enable the transfer of information from the Controllers to the hand-held computer, they must be able to 'talk' to each other. The link between the hand-held computer and the Ir Converter can be achieved using an infra-red link, or via an RS-232 serial cable.

If a serial cable is to be used as the link, it should be connected between the hand-held computer and the IR Converter before performing the actions described in **Sending and receiving data**.

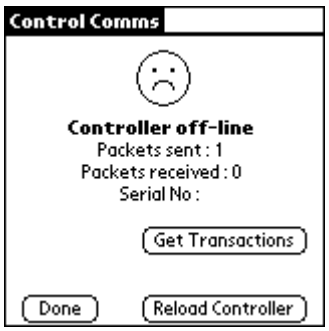
Sending and receiving data

In the absence of a communications network, the following steps must be performed at *each* Controller.

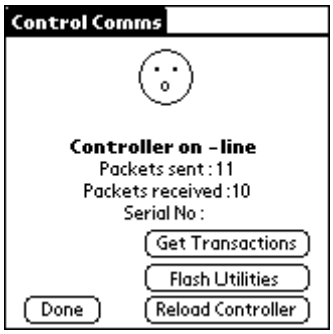
Commit changes alert

Communications status

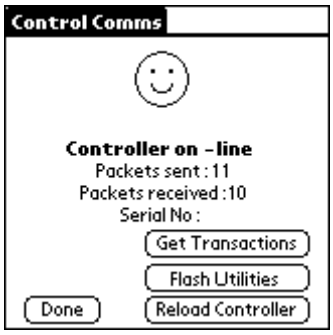
1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **Communications**. A **Commit Changes** message will be displayed.
3. By selecting **OK**, you will no longer be able to **Undo changes** already made to the database during the current session. Select **View** to display those changes.
4. The Communications screen is displayed listing all of the controllers in the database and details of packets waiting to be transmitted to those controllers.
5. Select the Controller **Name** from the list. JANUS-lite will automatically try to establish communication between the hand-held computer and the selected Controller.



Communication failure



Communication proceeding



Communication complete

- Failure of communication will result in a **Controller off-line** message.

6. If using the IR link:

- Ensure that the IR port on the hand-held computer is directed at the IR Reader (remote IR unit, or the port on the IR Converter). The distance between the two should be no more than 80mm.
- Ensure that the **Beam Receive** preference for the hand-held computer is set to **ON**.

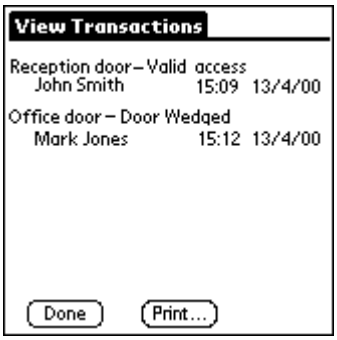
7. Select **Reload Controller**. You will be asked to confirm this selection. Click **OK** to continue.
8. When communication is established, the Controller serial number will be displayed and packets from the hand-held computer will be sent to the Controller.
9. After all waiting packets have been sent, the Controller will automatically download any transaction information to the hand-held computer, unless the **Hold back transactions** option was selected when setting up the controller. If this option was selected, a **Get Transactions** box is displayed (as shown in these examples), and must be selected before transactions will be retrieved from the controller.
10. Select **Done** to return to the list of Controllers.
11. Repeat steps 3 to 10 for all Controllers in the database.

- Data, which has been retrieved from the Controllers, can be viewed immediately by selecting **View transactions**.

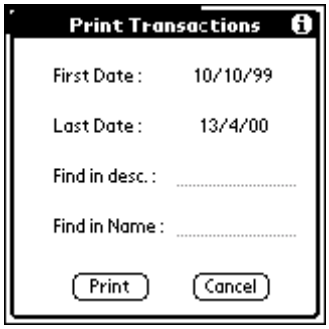
The Flash Utilities option is used to update the firmware that an IDC uses. See the section entitled **Updating firmware** for more information.

View transactions

JANUS-lite maintains a complete history of all transactions that have taken place within the system.



List of transactions



Print transactions

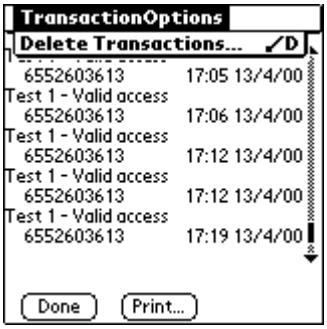
1. Ensure the correct database is displayed on the main JANUS-lite screen.
2. Select **View Transactions**. The **View Transactions** screen is displayed, listing in date order all transactions for that database.
3. To print out the transactions list, select **Print**.
   - Leaving the default dates would print all the transactions in the database. Change the dates to select only those transactions for a given time period.
   - To select transactions for specific events, use the **Find in desc** field.
   - To select transactions at specific controllers use the **Find in name** field.
   - By using a combination of date, name and description, a very specific selection of transactions can be printed.
4. Select **Done** to return to the main JANUS-lite screen.

The **Print** option will only work if **PalmPrint** software is installed on the organizer and an infra-red printer is available.

Delete transactions

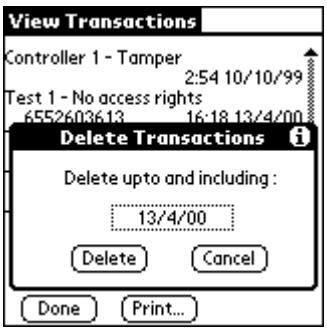
Because JANUS-lite maintains a complete history of *all* transactions that have taken place within the system, the transactions list can occupy a large amount of memory on the organizer.

It is possible to delete old transactions to increase the amount of memory available to the application. Transactions can only be deleted from the system database from within the **View Transactions** screen.



Delete transactions option

1. While in the View transactions screen, select the **Menu** Icon.
2. Choose **Delete Transactions** from the Transaction Options menu.
3. Select the **Date** field. By default, it shows the date of the most recent transaction.



Select transactions to delete

4. Modify the date as required.
5. Select **Delete** to remove all transactions *up to and including* the selected date.
6. Select **Done** to return to the main JANUS-lite screen.

A Delete transactions command cannot be undone.

Updating firmware

There are occasions when new firmware must be downloaded to a controller, usually upon the introduction of a new type of reader that has been developed since the controller was installed. The controller can maintain two separate pages of code, one **Active** and one **Inactive**. When downloading new firmware the inactive page is overwritten and can then be made Active. This is achieved by using the **Flash Utilities** option within the **Control Comms** screen.

Controller list

1. Ensure the correct database is displayed in the active database field on the main JANUS-lite screen. Select Communications.
2. The list of controllers defined in the database is displayed. Select the appropriate Controller Name from the list.

Control comms screen

3. JANUS-lite will automatically try to establish communication between the hand-held computer and the selected Controller.
4. When communication is established, waiting information will be transferred between the hand-held computer and the Controller as previously described.

Flash utilities screen

5. To update the firmware select **Flash Utilities**. This option is only available when communication between the hand-held computer and the Controller has been established.
6. Ensure that the page you wish to overwrite is marked as **Inactive**.

Flash download in progress

7. Select **Download**. The **Control Comms** screen will be displayed with a *'Get flash download in progress'* message, while the **Packets sent** field will be incremented as the download progresses.

Flash download complete

8. When finished a *'Flash download complete'* message will be displayed.

Updated flash utilities screen

9. Select **Flash Utilities**. The **Inactive Page** field will now display the current date and the legend *'Usable'*. If the download was unsuccessful the legend will state *'Unusable'*.

10. Select **Mark Active** to ensure that the controller uses the correct firmware.

11. Select Done to return to the Control Comms page. A *'Flash activate accepted'* message should be displayed.

Activate accepted

12. To ensure that the Active page has changed choose Flash Utilities. The Active Page should now show the correct date.

13. Select Done to return to the Control Comms page and select Done to return to the list of controllers.

14. Repeat steps 2 to 13 for all controllers that need to have their firmware updated.

System backup and archive

It is important to note the some organizers fail if their batteries run low. This can lead to the loss of all JANUS-lite software and all JANUS-lite databases stored on the organizer. To prevent this, Grosvenor Technology Ltd. recommend that all system data is backed-up to a PC each time changes are made to a JANUS-lite database. This will ensure that in the event of a power failure in the organizer, system data can be retrieved.

The transfer or synchronization of data between the hand-held computer and a PC will be dependent upon the type of hand-held computer being used. Consult the manufacturer's handbook for instructions.

The PC and other hardware requirements to do this will be dependent on the type of hand-held computer/organizer being used. Consult your handbook for the manufacturer's recommendations.

Glossary

Access Choice - Each Access Choice defines which area a cardholder is allowed into and at what times.

Area - An area is a location within a site to which access control is required. Areas are used in conjunction with time zones to define Access choices.

Cards - Everyone in the system is allocated a card. Each card has a unique number, which is contained in the card record within the system database along with the cardholder's details and the Access Choices that have been allocated. This information determines through which doors and at what times the cardholder is allowed.

Comms - The way the hand-held computer 'talks' to the access control system. By this means, it downloads the database, or selected parts of it, to the access control boxes, and receives messages from them.

Controller - Intelligent Door Controller. Controls 2 card readers, 4 monitored inputs and 4 outputs.

Database - A store of information on the hand-held computer. The information defines cards, access choices, doors, etc., and so determines how the access control system operates. The database is edited and saved using the JANUS-lite program.

Field - Each part of the record in which you can enter data is called a field. A record is made up of a number of fields. Certain fields contain text such as a name, others contain numbers such as the card number, and others are merely switches, which turn options on or off.

Hand-held computer/organizer – Used to process the JANUS-lite program, to store the system database(s), and to view system activity. The terms hand-held computer and organizer are interchangeable in the context of this manual.

Override Timeouts - Within the JANUS-lite application there are default timeouts set for events involving the different categories of hardware, for example, how long a door is open. There are instances when these need to be changed, e.g. if the door is used for disabled access, or if it is a turnstile. The 'open time' should be altered accordingly. This is done using the **Override Timeout** facility.

Record - Each group of information within the database, for example, about a card, a time zone, or an area is called a record.

Time zone - A time zone is a list of times linked to days of the week. Time zones are used in conjunction with Areas to control access through doors.

Transaction – An event monitored by the door controllers. For example: a valid card read. The database maintains details of all transactions at each controller, including: door, card number, time etc.

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